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Application Serial Number 10/554,400

REMARKS

Claim 7, now canceled without prejudice, recited that *said reference point detection unit (102) detects a plurality of reference points including other reference markers measured by said measurement device; and said virtual line calculation device (104) calculates said virtual line in such a manner that said virtual line passes through said plurality of reference points* (emphasis added).

Claim 1 already recited "at least one reference marker," so the plurality feature was not confined to claim 7, but was already present in claim 1. The present amendment, which overtly recites a plurality of markers, does not present a new issue, but rather, narrows claim 1 by excluding the case of one marker, and leaving the case of more than one.

The other amendments make the claims more explicit. No new issue is raised. Reconsideration is requested on the basis of features already in claim 7 and the other claims.

(1) Claims 1-11, and 14-91 are rejected under 35 U.S.C. §102(e) as being anticipated by Gudat US 2004/0210370, newly applied. This rejection is respectfully traversed.

The Examiner asserts that paragraphs 0008 and 0029 of Gudat disclose the claimed *measurement device (20) ... to measure the position of the construction surface of the current work object, and the position of the plurality of reference markers located in the vicinity of said construction surface*. However, it is paragraphs 0024 and 0025, not 0008 and 0029, that disclose ground-penetrating radar and acoustic techniques. Gudat also uses maps (paragraph 0023), again to locate underground objects. There is no disclosure of measuring *the construction surface of the current work object* [e.g., the surface of the earth], by any method whatsoever, in Gudat.

Gudat does not use the word "marker," but the Examiner asserts that paragraphs 0008 and 0029 disclose two reference markers, respectively including two reference points defining a virtual line therebetween, and a reference point detection unit to detect the reference points corresponding to the reference markers disposed in the vicinity of said construction surface. Fig.

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3 of Gudat, which is applied, shows two buried pipes 108a and 108b: these seem to be the only candidates for the Examiner's asserted "markers."

With respect, the Applicants find no support for the Examiner's assertion that Gudat discloses *a virtual line calculation unit (104) to calculate from the two respective reference points a virtual line, passing through the two reference points and corresponding to a construction surface target line that is to be formed by the acting component*. Paragraph 0029 (the only paragraph relied upon for disclosing the virtual line calculating unit) discusses the display of Fig. 3, showing the earth-working machine, the two buried pipes, a "current [existing] terrain 304," and a "desired terrain 306." There is also a plan view in the upper portion of Fig. 3.

Gudat's "desired terrain" 306 is a straight line passing through a single one of the pipes, namely the pipe 108a, which is at a higher elevation than the other pipe. There is no indication of any construction surface target line passing through two markers (even assuming that the pipes are "markers," which is questionable). Furthermore, there is no mention of "calculating" anywhere in the reference, and there is no teaching of how the "desired terrain" is determined. Paragraph 0030, which is the other paragraph to discuss Fig. 3, implies that it is only the height of the current terrain 304 above or below the desired terrain 306 that is displayed; if so, there would be no need to *calculate* a line, because the slope of the line would always be zero if the line never did tilt.

The rejection of claims 15 and 16 is, with respect, mistaken. No laser is disclosed, and the methods that are disclosed in the text cited by the Examiner (ground-penetrating radar, acoustic imaging) are useful for buried objects; they would not be needed for objects on the surface. Conversely, a laser cannot penetrate the earth, and is useful only for locating objects on the surface. Therefore, there is no implied disclosure of a laser.

(2) Claim 12 is rejected under 35 U.S.C. §103(a) as being obvious over Gudat in view of Yokota US 2002/0183924. This rejection is respectfully traversed on the grounds above.

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In view of the aforementioned amendments and accompanying remarks, the application is submitted to be in condition for allowance, which action, at an early date, is requested.

Respectfully submitted,

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I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax No. (571-273-8300) on March 6, 2009.

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